

The Ethnology of Modern Egypt. By CHARLES S. MYERS,
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The material which serves for the present study* was collected by me in the years 1901 and 1902. During my stay at Abbasia, near Cairo, I measured, described and photographed 1006 Egyptian conscripts; I thus obtained over 17,000 measurements. I am indebted to the Government Grants Committee of the Royal Society and to the British Association for the Advancement of Science, for financial assistance. My hearty thanks are also due to Sir F. R. Wingate, K.C.B., K.C.M.G., Sirdar of the Egyptian Army, who kindly placed at my disposal as many Egyptian and Sudanese troops as I had time to examine.

The object of my work was to determine what differences, if any, exist between (A) the Ancient and Modern Egyptians, (B) the present inhabitants of different parts of Egypt, and (C) the present Moslems and the present Copts†.

A. Comparisons between the Ancient and Modern Egyptians.

I have compared my data with those published by Miss Fawcett and her collaborators‡, and derived from a series of "prehistoric" skulls which Prof. Flinders Petrie excavated at Nakada. I have carefully selected for comparison only those of my measurements which refer to persons living under the same conditions and in the same part of Egypt as did their "prehistoric" ancestors some seven thousand years ago.

The following table shows the cephalic index and the head-measurements, taken in the "prehistoric" series on the skull, and in the modern series on the living head:—

Series	Head length		Head breadth		Cephalic Index	
	No.	Mean	No.	Mean	No.	Mean
Nakada ("prehistoric")	139	185.13	139	134.87	130	72.99
Kena ("modern")	53	194.79	53	143.91	53	73.94
Girga ("modern")	83	194.53	83	144.33	83	74.25
Kena and Girga } ("modern") }	136	194.63	136	144.16	136	74.13

* For a more detailed account the reader may be referred to my "Contributions to Egyptian Anthropology," which are appearing in the *Journal of the Anthropological Institute*.

† Egypt was officially proclaimed a Christian country in the reign of Theodosius I, 308 A.D., and remained so until the Moslem invasion of 640 A.D. The Copts are the small section of Egyptians who, refusing to embrace Mahomedanism, have continued to this day steadfast in the former religion.

‡ *Biometrika*, 1902, I. pp. 408—467.

If we deduct 10 mm. from the head length and 10·5 mm. from the head breadth, and a proportionate figure, 1·6, from the cephalic index (these deductions being based on Welcker's investigations*, and allowance being made for the closely-cropped hair of my subjects), the figures then become:—

Series	No.	Head length	Head breadth	Cephalic Index
Nakada ("prehistoric")	139	185·13	134·87	72·99
Kena and Girga } ("modern") }	136	184·63	133·66	72·53

whence I conclude that *there is no essential difference between the head-measurements of the prehistoric and of the modern population of this region of Egypt.*

A similar conclusion results from the study of the comparative variability of the prehistoric and modern peoples. In the following table, σ expresses the standard deviation, C the coefficient of variability, and each value is followed by its probable error.

Series	Head length			Head breadth		
	No.	σ	C	No.	σ	C
Nakada ("pre-historic")	139	5·75 ± 0·23	3·17 ± 0·13	139	4·60 ± 0·19	3·29 ± 0·13
Kena and Girga } ("modern") }	136	5·83 ± 0·24	3·00 ± 0·12	136	4·31 ± 0·18	2·99 ± 0·12

Series	Cephalic Index			Auricular Height		
	No.	σ	C	No.	σ	C
Nakada ("pre-historic")	130	2·80 ± 0·12	3·83 ± 0·16	140	4·46 ± 0·18	3·86 ± 0·16
Kena and Girga } ("modern") }	136	3·04 ± 0·12	4·10 ± 0·17	64	4·47 ± 0·27	3·07 ± 0·18

Series	Horizontal Circumference			Upper Facial Index		
	No.	σ	C	No.	σ	C
Nakada ("pre-historic")	118	13·00 ± 0·57	2·54 ± 0·11	76	4·52 ± 0·25	6·41 ± 0·35
Kena and Girga } ("modern") }	57	13·38 ± 0·84	2·45 ± 0·15	135	3·14 ± 0·13	6·53 ± 0·27

* Schiller's *Schädel und Todtenmaske*, Braunschweig, 1883, quoted by Lee and Pearson, *Phil. Trans. Roy. Soc.*, 1901, cxcvi. p. 251.

I conclude, then, that *the homogeneity of the Egyptians of this district is the same to-day as it was seven thousand years ago.*

Against the justifiability of this conclusion it may be urged that the modern Egyptians whom I have measured are a picked body of men, chosen for their good physique. But I have also made a special comparison of my modern material with the data obtained from thirty-five of the very tallest skeletons of the Nakada series; and I have not found any appreciable difference between the selected and the unselected data as regards average head dimensions or as regards the variability of those dimensions.

My last attempt has been to study the coefficients of correlation in the prehistoric and in the modern series (a) between length and breadth, (b) between length and auricular height, and (c) between breadth and auricular height, of head.

Series	No.	Correlation L. and B.	No.	Correlation L. and Au. H.	No.	Correlation B. and Au. H.
Nakada ("prehistoric")	139	0·344 ± 0·050	64	0·401 ± 0·071	64	0·174 ± 0·082
Kena and Girga ("modern")	136	0·082 ± 0·057	64	0·237 ± 0·080	64	0·379 ± 0·072

The above table shows that *length and breadth and length and auricular height of head are much more closely correlated in the prehistoric than in the modern people, while the reverse relation holds in the correlation of head breadth and auricular height.*

B. Comparison of the present inhabitants of different parts of Egypt.

The only significant differences that I have been able to find between the present inhabitants of different parts of the Nile Valley occur in respect of features which distinguish Negroid from Caucasian peoples.

The nasal index increases in Egypt as we pass from the more northern to the more southern provinces. Probably the upper facial index decreases and the gnathic index increases in the same direction. The colour of the eye and skin also darkens, and the frequency of spiral and crisp hair increases.

Possibly three provinces, Menufia, Kaliubia, and Sharkia form an exception to these conclusions. But in two of the three provinces a sufficient number of data was not obtained.

After careful analysis of the distribution curves of measurements and indices, I have not found it possible to resolve them

into component curves, each corresponding to an underlying ethnic type.

C. Comparison of the Moslems with the Copts.

The Copts are fairer in eye and in skin colour, have straighter hair and thinner lips than the Moslems. The nasal index among the Copts of Lower Egypt is lower than among those of Upper Egypt. The nasal index among the Copts is lower than among the Moslems. *The Copts are less Negroid than the Moslems.*

GENERAL CONCLUSIONS.

We have seen that in modern Egypt the Moslem population takes on increasingly Negroid characters as we proceed from the Mediterranean shores towards the First Cataract. Is this the result of more frequent intermarriage with the inhabitants of the Sudan ?

In preparing to answer this question, we cannot neglect the fact that similar differences in degree of Negroid characters appear to exist among the Copts of Lower and Upper Egypt, who are known to have remained free from Sudanese admixture during the past 1300 years. If, then, an increasing amount of Sudanese admixture be the cause of the increasing Negroid character of Upper as compared with Lower Egypt, it is clear that the intermarriage must have occurred at a very remote date, and that its results have been perpetuated since then.

But we may reasonably doubt whether so long a persistence of the effects of intermarriage is possible. From many different quarters we have indications that ultimately an aboriginal people absorbs and exterminates the physical characters of those who come to settle among them. The enormous migrations of Greeks into the Egyptian oasis of the Fayum, beginning about 2500 years ago and ending soon after the start of the Christian Era, have left no trace of an effect to-day on the physique of the modern dwellers in this oasis. The latter have a nasal index which is distinctly higher than that which occurs among the northern provinces of the Delta, and almost identical with the index found in the Nile Valley in the same latitude as the Fayum.

There are many writers on Egyptian ethnology who believe that from time immemorial there have always been at least two races in Egypt, the one Caucasian (Mediterranean or Libyan) the other Negroid, and that to this day both these races are present throughout Egypt although prevalent in different degrees in different regions. Now we may conceivably look for support of such a hypothesis in the following directions.

We should expect that the inhabitants of Middle Egypt, where presumably the two races are present in equal intensity, would

tend to show greater variability than those of extreme Upper or of extreme Lower Egypt, in which one of the two races presumably predominates to the relative exclusion of the other. But as a fact I have found no such tendency whatever. There is no evidence that the peoples of different parts of Egypt differ in homogeneity.

Secondly, we should expect that the frequency curves for the provinces of Upper and Lower Egypt would have a markedly asymmetrical form, the one showing a skew in one direction, the other in the other, while the frequency curves for the provinces of Middle Egypt would approach the symmetrical form. Again, in point of fact, I can find nothing of the kind.

In the third place, we should expect that a series of distribution curves of the same measurement would show identical peaks in different provinces of Egypt, if two races really existed. This identity of peaks I have in general failed to find. Where it occurs, I believe that it cannot possibly be held to indicate duality of race, inasmuch as the peaks lie far too close (*i.e.* are too nearly of identical value) to have arisen from the inclusion of two types and their fluctuations within a single curve. There is indeed little reason to doubt that if only measurements could be taken in adequate number, the various provinces would each afford smooth peakless distribution curves, having in respect of Negroid characters different averages dependent on the latitude of the provinces, but having like variability*.

I contend, then, that from the anthropometric standpoint every province contains a homogeneous population, notwithstanding the fact that the mean measurements vary in degree of Negroidness according to province. On each side of the variable mean, there are fluctuations to like extents in different provinces. There is no anthropometric evidence of duality of race. I consider that in spite of the various infiltrations of foreign blood in the past, modern Egypt contains a homogeneous population, which gradually shifts its average character as we proceed southwards from the shores of the Mediterranean to Nubia beyond the First Cataract. The transition with which we may meet in such a travel, is certainly not one from Egyptian to Sudanese. What transition there is is from the fairer Mediterranean to the more swarthy Nubian population, a very different matter. The effects of Sudanese admixture both in Egypt and in Nubia are almost as patent as they would be in England.

Thus I regard the aboriginal people of Egypt as a homogeneous

* It is highly probable that the peaked curves on which Professor Petrie unhappily bases his racial analyses of Egypt (the Huxley Lecture for 1906) are sheer accidents, due to the examination of an insufficient number of measurements. Cf. *Biometrika*, 1902, Vol. i. p. 441 *et seq.*

folk, showing an inclination to vary in two or three distinct directions, towards the Caucasian, the Negroid, or even the Mongoloid. The same tendency is also shown among the inhabitants of our own shores. There is hardly any test of Negroid or Mongoloid character (save that of colour), which would not embrace a small but a certain number of our most purely bred fellow-countrymen*. Europeans show accidental variations in the direction, for example, of obliquely directed axes of the eyes or of frizzly hair. Such accidental variations I assume to have been present in the aboriginal Egyptian population, and I hold that environment has been the selecting factor which has intensified and made permanent one or other of these accidental variations.

It would, of course, be absurd to say that a broader nose or a more projecting jaw is essential for a longer life in Upper as compared with Lower Egypt. But I believe that correlated with these physical features there are certain unknown physiological factors which make life easier to sustain in the dry, warm weather of Upper Egypt than in the wetter, cooler and more fertile regions near the Mediterranean.

On the other hand, I am far from denying that sporadic admixture with the Sudanese or with Levantine peoples is without effect or that it has not taken place. We may admit the act and the effect of occasional admixture and yet feel convinced that alone such admixture is insufficient to explain the difficulties at issue.

To sum up. *There is no anthropometric (despite the historical) evidence that the population of Egypt, past or present, is composed of several different races. The probabilities are all in favour of the view which regards the Egyptians always as a homogeneous people who have varied now towards Caucasian, now towards Negroid characters according to environment, showing such close anthropometric affinity to Libyan, Arabian and like neighbouring peoples, showing such variability and possibly such power of absorption, that from the anthropometric standpoint no evidence is obtainable that the modern Egyptians have been appreciably affected by other than sporadic Negroid admixture.*

* This fact dispels the following objection adduced by Thomson and McIver in *The Ancient Races of the Thebaid*:—"No one would allow that a negro nose and a European nose are simply legitimate deviations from a single race type. And yet these are the extremes which occur in our series" (p. 50). I contend that extremes do meet and overlap, and that in the case of Egypt the margin of overlapping is still further widened by sporadic Sudanese and Levantine admixture.

